## THE IMPORTANCE OF BREAKFAST Preventing "hangry"

DID YOU KNOW? Hunger is a stressful experience for your body! You probably have experienced the symptoms of this stress response, which include trouble concentrating, frequent mistakes, difficulty forming speech, irritability, and cravings for energy-dense foods. Since breakfast is the first meal after the overnight fast, people are especially susceptible to this hunger-induced stress response if they do not fuel their bodies with breakfast.

Since the brain is critically dependent on glucose for energy, this organ perceives low blood glucose as a life-threatening situation. In the absence of food, the brain corrects the low blood glucose by sending instructions to different organs in the body to synthesize and release hormones that increase blood glucose. These hormones include growth hormone, glucagon, adrenaline, and cortisol.

Additionally, neuropeptide Y, another chemical that is released in response to hunger, acts on receptors in the brain to stimulate feeding behaviors. Neuropeptide Y and its receptors are associated with anger and aggression, which is one reason why many people become irritable and angry when they are hungry – a phenomenon commonly known as "hangry."

By starting the day with breakfast, the body is prepared to metabolize food throughout the day. Research shows that people who eat breakfast have fewer drastic bursts of hunger hormones, less overeating, and steadier blood glucose and insulin levels, even when they eat the same amount of food throughout the day than those who didn't eat breakfast. Thus, by eating breakfast, you can help your body have steadier energy levels, less inflammation, fewer energy crashes and cravings, and smaller chance of developing chronic conditions such as heart disease, obesity, and diabetes. Not to mention – it prevents you from becoming "hangry"!

## How the USDA Meal Pattern Requirements Guide Breakfast Meals

By following the USDA meal pattern requirements, schools can receive money back for breakfasts and lunches. While still a work in progress, these meal pattern requirements encourage a more balanced meal. The breakfast requirements are as follows:

- 1 oz grains (at least 51% whole grain); 7-10 oz per week\*
- 1 cup fruit; 5 cups per week
- 1 cup milk (must be 1% or skim); 5 cups per week

<sup>\*</sup>Meat/meat alternatives, such as eggs, cheese, and yogurt, can be served as a grain equivalent if the daily grain requirement is met.